



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,681	02/18/2004	Yue Jun Jiang	028327-00068	5243

4372 7590 11/18/2008  
ARENT FOX LLP  
1050 CONNECTICUT AVENUE, N.W.  
SUITE 400  
WASHINGTON, DC 20036

EXAMINER
----------

TAYLOR, BARRY W

ART UNIT	PAPER NUMBER
----------	--------------

2617

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

11/18/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DCIPDocket@arentfox.com  
IPMatters@arentfox.com  
Patent\_Mail@arentfox.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/782,681	<b>Applicant(s)</b> JIANG, YUE JUN	
	<b>Examiner</b> Barry W. Taylor	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-54, 56-61, 64-69 and 73-84 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 61, 64-69, 73-76, 78, 79 and 84 is/are allowed.
- 6) ☒ Claim(s) 1-54, 56-60, 77 and 80-83 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

1. Claims 30-38, 49-54, 56-60, and 82-83 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of the invention. While the claims recite a series of steps or acts to be performed, a statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article of material) to a different state or thing (Reference the May 15, 2008 memorandum issued by Deputy Commissioner for Patent Examining Policy, John J. Love, titled "Clarification of 'Processes' under 35 U.S.C. 101"). The instant claims neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1-7, 10-22, 25-35, 38-46, 49-54, 56-57, 60, 77 and 80-83 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anvekar et al (6,603,968) in view of Molne (6,014,561), Ala-Luukko (2003/0050047), and Joss et al (6,684,073 hereinafter Joss) further in view of Julin (6,212,372).

Regarding claim 1. Anvekar teaches a communication system (title, abstract) comprising:

a mobile device including a SIM and a single IMSI (col. 1 line 41 – col. 2 line 18, col. 4 lines 41-60, col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6);

a first MSISDN for use in a first public mobile network (col. 4 lines 41-60, col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6).

Anvekar does not show more than one MSISDN in conjunction with same SIM.

**However, Anvekar does disclose roaming between different service providers (col. 6 line 23 - col. 8 line 6).**

Molne teaches the SIM comprises multiple MSISDNs (see SIM card in figure 4, col. 8 lines 14-32). **Molne discloses SIM comprises multiple MSISDNs is because different networks may operate via different standards which would clearly imply**

**that one operator uses PCS standard and another operator may operate via AMPS (col. 8 lines 14-32).**

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the teachings of Molne into the teachings of Anvekar in order to provide a method and apparatus for over the air activation of multiple mode/band radio telephone as disclosed by Molne (abstract, col. 2 line 66 – col. 3 line 2).

Anvekar in view of Molne do not show signal gateway using only one IMSI.

Ala-Luukko also teaches IMSI in conjunction with MSISDN (paragraphs 0004 – 0005). Ala-Luukko also teaches that one IMSI can be associated with more than one MSISDN (paragraph 0023). Ala-Luukko teaches the HLR offers an interface to a gateway node to be used for requesting MSISDN number on the basis of IMSI thereby eliminating the need to copy and/or store data in two different places (paragraphs 0036 – 0043) thus enabling for real-time services to be employed from the gateway (paragraphs 0005, 0011, 0012, 0013).

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the signal gateway as taught by Ala-Luukko into the teachings of Anvekar in view of Molne thereby eliminating the need to store subscriber data in two different locations while providing a method and system that can offer and charge for real-time services as taught by Ala-Luukko (paragraphs 0005, 0011 – 0013).

Anvekar and Ala-Luukko do not use the term IMSI-H.

Joss also teaches using IMSI-H that is assigned via Home operator so subscribers can roam into areas that have **no roaming agreement with the operator**

Art Unit: 2617

**of their home network** (col. 1 line 5 – col. 2 line 42). Joss uses IMSI-H so foreign networks can recognize mobile users as an authorized subscriber from a different network (col. 2 line 43 – col. 3 line 53, col. 5 lines 14-25, col. 6 lines 7-67, col. 7 lines 1-43, col. 8 lines 1-64, col. 9 line 30 – col. 10 line 30, col. 10 line 64 – col. 11 line 22).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to modify the invention as taught by Anvekar in view of Molne and Ala-Luukko to assign a home IMSI number as taught by Joss so that subscribers can roam freely in a foreign network that has no roaming agreement with the subscribers home operator while saving on networking resources since only the Home Location Register is the only place subscriber data needs to be stored (Joss --- col. 2 lines 35-42, col. 5 lines 14-25, col. 6 lines 53-54, col. 10 line 64 – col. 11 line 22).

According to Applicants (see paper dated 10/31/07, page 29 line 9), Anvekar in view of Ala-Luukko and Joss do not explicitly show using a single HLR entry corresponding to the IMSI-H.

Julin teaches the IMSI-H is linked to a single entry in the HLR (abstract, col. 4 lines 33-49) to enable a more flexible use of subscriptions and subscriber identity modules (col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 13-16, col. 2 lines 39-42).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to incorporate the teachings of Julin into the teachings of Anvekar in view of Ala-Luukko and Joss providing for a more flexible subscriber identity module that can be used in a new way (Julin col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 39-42).

Regarding claim 17. Anvekar teaches a communication system (title, abstract), comprising:

means for wireless communications (figure 5, col. 6 line 25 – col. 8 line 6);

means for associating a single subscriber identity with the means for wireless communications (figure 5, col. 6 line 25 – col. 8 line 6).

Anvekar does not show first and second telephone number in conjunction with a single subscriber identity. **However, Anvekar does disclose roaming between different service providers (col. 6 line 23 - col. 8 line 6).**

Molne teaches the SIM comprises multiple MSISDNs (see SIM card in figure 4, col. 8 lines 14-32). **Molne discloses SIM comprises multiple MSISDNs is because different networks may operate via different standards which would clearly imply that one operator uses PCS standard and another operator may operate via AMPS (col. 8 lines 14-32).**

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the teachings of Molne into the teachings of Anvekar in order to provide a method and apparatus for over the air activation of multiple mode/band radio telephone as disclosed by Molne (abstract, col. 2 line 66 – col. 3 line 2).

Anvekar in view of Molne do not show signal gateway using only one IMSI.

Ala-Luukko also teaches IMSI in conjunction with MSISDN (paragraphs 0004 – 0005). Ala-Luukko also teaches that one IMSI can be associated with more than one MSISDN (paragraph 0023). Ala-Luukko teaches the HLR offers an interface to a

gateway node to be used for requesting MSISDN number on the basis of IMSI thereby eliminating the need to copy and/or store data in two different places (paragraphs 0036 – 0043) thus enabling for real-time services to be employed from the gateway (paragraphs 0005, 0011, 0012, 0013).

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the signal gateway as taught by Ala-Luukko into the teachings of Anvekar in view of Molne thereby eliminating the need to store subscriber data in two different locations while providing a method and system that can offer and charge for real-time services as taught by Ala-Luukko (paragraphs 0005, 0011 – 0013).

Anvekar and Ala-Luukko do not use the term IMSI-H.

Joss also teaches using IMSI-H that is assigned via Home operator so subscribers can roam into areas that have **no roaming agreement with the operator of their home network** (col. 1 line 5 – col. 2 line 42). Joss uses IMSI-H so foreign networks can recognize mobile users as an authorized subscriber from a different network (col. 2 line 43 – col. 3 line 53, col. 5 lines 14-25, col. 6 lines 7-67, col. 7 lines 1-43, col. 8 lines 1-64, col. 9 line 30 – col. 10 line 30, col. 10 line 64 – col. 11 line 22).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to modify the invention as taught by Anvekar in view of Molne and Ala-Luukko to assign a home IMSI number as taught by Joss so that subscribers can roam freely in a foreign network that has no roaming agreement with the subscribers home operator while saving on networking resources since only the Home Location



Register is the only place subscriber data needs to be stored (Joss --- col. 2 lines 35-42, col. 5 lines 14-25, col. 6 lines 53-54, col. 10 line 64 – col. 11 line 22).

According to Applicants (see paper dated 10/31/07, page 29 line 9), Anvekar in view of Ala-Luukko and Joss do not explicitly show using a single HLR entry corresponding to the IMSI-H.

Julin teaches the IMSI-H is linked to a single entry in the HLR (abstract, col. 4 lines 33-49) to enable a more flexible use of subscriptions and subscriber identity modules (col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 13-16, col. 2 lines 39-42).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to incorporate the teachings of Julin into the teachings of Anvekar in view of Ala-Luukko and Joss providing for a more flexible subscriber identity module that can be used in a new way (Julin col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 39-42).

Regarding claim 18. Anvekar teaches a system comprising a wireless client device that includes:

one SIM having one IMSI (col. 1 line 41 – col. 2 line 18, col. 4 lines 41-60, col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6).

Anvekar does not show more than two MSISDN in conjunction with one SIM having only one IMSI. **However, Anvekar does disclose roaming between different service providers (col. 6 line 23 - col. 8 line 6).**

Molne teaches the SIM comprises multiple MSISDNs (see SIM card in figure 4, col. 8 lines 14-32). **Molne discloses SIM comprises multiple MSISDNs is because**

**different networks may operate via different standards which would clearly imply that one operator uses PCS standard and another operator may operate via AMPS (col. 8 lines 14-32).**

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the teachings of Molne into the teachings of Anvekar in order to provide a method and apparatus for over the air activation of multiple mode/band radio telephone as disclosed by Molne (abstract, col. 2 line 66 – col. 3 line 2).

Anvekar in view of Molne do not show signal gateway using only one IMSI.

Ala-Luukko also teaches IMSI in conjunction with MSISDN (paragraphs 0004 – 0005). Ala-Luukko also teaches that one IMSI can be associated with more than one MSISDN (paragraph 0023). Ala-Luukko teaches the HLR offers an interface to a gateway node to be used for requesting MSISDN number on the basis of IMSI thereby eliminating the need to copy and/or store data in two different places (paragraphs 0036 – 0043) thus enabling for real-time services to be employed from the gateway (paragraphs 0005, 0011, 0012, 0013).

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the signal gateway as taught by Ala-Luukko into the teachings of Anvekar in view of Molne thereby eliminating the need to store subscriber data in two different locations while providing a method and system that can offer and charge for real-time services as taught by Ala-Luukko (paragraphs 0005, 0011 – 0013).

Anvekar and Ala-Luukko do not use the term IMSI-H.

Joss also teaches using IMSI-H that is assigned via Home operator so subscribers can roam into areas that have **no roaming agreement with the operator of their home network** (col. 1 line 5 – col. 2 line 42). Joss uses IMSI-H so foreign networks can recognize mobile users as an authorized subscriber from a different network (col. 2 line 43 – col. 3 line 53, col. 5 lines 14-25, col. 6 lines 7-67, col. 7 lines 1-43, col. 8 lines 1-64, col. 9 line 30 – col. 10 line 30, col. 10 line 64 – col. 11 line 22).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to modify the invention as taught by Anvekar in view of Molne and Ala-Luukko to assign a home IMSI number as taught by Joss so that subscribers can roam freely in a foreign network that has no roaming agreement with the subscribers home operator while saving on networking resources since only the Home Location Register is the only place subscriber data needs to be stored (Joss --- col. 2 lines 35-42, col. 5 lines 14-25, col. 6 lines 53-54, col. 10 line 64 – col. 11 line 22).

According to Applicants (see paper dated 10/31/07, page 29 line 9), Anvekar in view of Ala-Luukko and Joss do not explicitly show using a single HLR entry corresponding to the IMSI-H.

Julin teaches the IMSI-H is linked to a single entry in the HLR (abstract, col. 4 lines 33-49) to enable a more flexible use of subscriptions and subscriber identity modules (col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 13-16, col. 2 lines 39-42).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to incorporate the teachings of Julin into the teachings of Anvekar in view of Ala-Luukko and Joss providing for a more flexible subscriber identity module

Art Unit: 2617

that can be used in a new way (Julin col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 39-42).

Regarding claim 19. Anvekar teaches a device comprising:

Mobile device includes a single SIM and a single IMSI (col. 1 line 41 – col. 2 line 18, col. 4 lines 41-60, col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6).

Anvekar does not show SIM having two MSISDN. **However, Anvekar does disclose roaming between different service providers (col. 6 line 23 - col. 8 line 6).** Molne teaches the SIM comprises multiple MSISDNs (see SIM card in figure 4, col. 8 lines 14-32). **Molne discloses SIM comprises multiple MSISDNs is because different networks may operate via different standards which would clearly imply that one operator uses PCS standard and another operator may operate via AMPS (col. 8 lines 14-32).**

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the teachings of Molne into the teachings of Anvekar in order to provide a method and apparatus for over the air activation of multiple mode/band radio telephone as disclosed by Molne (abstract, col. 2 line 66 – col. 3 line 2).

Anvekar in view of Molne do not show signal gateway using only one IMSI and one SIM.

Ala-Luukko also teaches IMSI in conjunction with MSISDN (paragraphs 0004 – 0005). Ala-Luukko also teaches that one IMSI can be associated with more than one MSISDN (paragraph 0023). Ala-Luukko teaches the HLR offers an interface to a gateway node to be used for requesting MSISDN number on the basis of IMSI thereby

eliminating the need to copy and/or store data in two different places (paragraphs 0036 – 0043) thus enabling for real-time services to be employed from the gateway (paragraphs 0005, 0011, 0012, 0013).

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the signal gateway as taught by Ala-Luukko into the teachings of Anvekar in view of Molne thereby eliminating the need to store subscriber data in two different locations while providing a method and system that can offer and charge for real-time services as taught by Ala-Luukko (paragraphs 0005, 0011 – 0013).

Anvekar and Ala-Luukko do not use the term IMSI-H.

Joss also teaches using IMSI-H that is assigned via Home operator so subscribers can roam into areas that have **no roaming agreement with the operator of their home network** (col. 1 line 5 – col. 2 line 42). Joss uses IMSI-H so foreign networks can recognize mobile users as an authorized subscriber from a different network (col. 2 line 43 – col. 3 line 53, col. 5 lines 14-25, col. 6 lines 7-67, col. 7 lines 1-43, col. 8 lines 1-64, col. 9 line 30 – col. 10 line 30, col. 10 line 64 – col. 11 line 22).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to modify the invention as taught by Anvekar in view of Molne and Ala-Luukko to assign a home IMSI number as taught by Joss so that subscribers can roam freely in a foreign network that has no roaming agreement with the subscribers home operator while saving on networking resources since only the Home Location Register is the only place subscriber data needs to be stored (Joss --- col. 2 lines 35-42, col. 5 lines 14-25, col. 6 lines 53-54, col. 10 line 64 – col. 11 line 22).

According to Applicants (see paper dated 10/31/07, page 29 line 9), Anvekar in view of Ala-Luukko and Joss do not explicitly show using a single HLR entry corresponding to the IMSI-H.

Julin teaches the IMSI-H is linked to a single entry in the HLR (abstract, col. 4 lines 33-49) to enable a more flexible use of subscriptions and subscriber identity modules (col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 13-16, col. 2 lines 39-42).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to incorporate the teachings of Julin into the teachings of Anvekar in view of Ala-Luukko and Joss providing for a more flexible subscriber identity module that can be used in a new way (Julin col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 39-42).

Regarding claim 30. Anvekar teaches a method for supporting multiple MSISDN in a mobile device, comprising:

routing communication between the mobile device and first network using first MSISDN wherein the mobile device includes a SIM with a single IMSI (col. 1 line 41 – col. 2 line 18, col. 4 lines 41-60, col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6);

mapping the first MSISDN to second MSISDN that is associated with second network (col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6).

Anvekar does not show SIM in conjunction with two MSISDN. **However, Anvekar does disclose roaming between different service providers (col. 6 line 23 - col. 8 line 6).**

Art Unit: 2617

Molne teaches the SIM comprises multiple MSISDNs (see SIM card in figure 4, col. 8 lines 14-32). **Molne discloses SIM comprises multiple MSISDNs is because different networks may operate via different standards which would clearly imply that one operator uses PCS standard and another operator may operate via AMPS (col. 8 lines 14-32).**

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the teachings of Molne into the teachings of Anvekar in order to provide a method and apparatus for over the air activation of multiple mode/band radio telephone as disclosed by Molne (abstract, col. 2 line 66 – col. 3 line 2).

Anvekar in view of Molne do not show routing using only one IMS.

Ala-Luukko also teaches IMSI in conjunction with MSISDN (paragraphs 0004 – 0005). Ala-Luukko also teaches that one IMSI can be associated with more than one MSISDN (paragraph 0023). Ala-Luukko teaches the HLR offers an interface to a gateway node to be used for requesting MSISDN number on the basis of IMSI thereby eliminating the need to copy and/or store data in two different places (paragraphs 0036 – 0043) thus enabling for real-time services to be employed from the gateway (paragraphs 0005, 0011, 0012, 0013).

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the signal gateway as taught by Ala-Luukko into the teachings of Anvekar in view of Molne thereby eliminating the need to store subscriber data in two different locations while providing a method and system that can offer and charge for real-time services as taught by Ala-Luukko (paragraphs 0005, 0011 – 0013).

Anvekar and Ala-Luukko do not use the term IMSI-H.

Joss also teaches using IMSI-H that is assigned via Home operator so subscribers can roam into areas that have **no roaming agreement with the operator of their home network** (col. 1 line 5 – col. 2 line 42). Joss uses IMSI-H so foreign networks can recognize mobile users as an authorized subscriber from a different network (col. 2 line 43 – col. 3 line 53, col. 5 lines 14-25, col. 6 lines 7-67, col. 7 lines 1-43, col. 8 lines 1-64, col. 9 line 30 – col. 10 line 30, col. 10 line 64 – col. 11 line 22).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to modify the invention as taught by Anvekar in view of Molne and Ala-Luukko to assign a home IMSI number as taught by Joss so that subscribers can roam freely in a foreign network that has no roaming agreement with the subscribers home operator while saving on networking resources since only the Home Location Register is the only place subscriber data needs to be stored (Joss --- col. 2 lines 35-42, col. 5 lines 14-25, col. 6 lines 53-54, col. 10 line 64 – col. 11 line 22).

According to Applicants (see paper dated 10/31/07, page 29 line 9), Anvekar in view of Ala-Luukko and Joss do not explicitly show using a single HLR entry corresponding to the IMSI-H.

Julin teaches the IMSI-H is linked to a single entry in the HLR (abstract, col. 4 lines 33-49) to enable a more flexible use of subscriptions and subscriber identity modules (col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 13-16, col. 2 lines 39-42).



It would have been obvious for any one of ordinary skill in the art at the time of invention was made to incorporate the teachings of Julin into the teachings of Anvekar in view of Ala-Luukko and Joss providing for a more flexible subscriber identity module that can be used in a new way (Julin col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 39-42).

Regarding claim 39. Computer claim 39 is rejected for the same reasons as method claim 30 since the recited method would perform the claimed program steps.

Regarding claim 40. Anvekar teaches a communication system comprising:

a mobile device including a SIM and a single IMSI (col. 1 line 41 – col. 2 line 18, col. 4 lines 41-60, col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6);

a first MSISDN for use in a first network (col. 1 line 41 – col. 2 line 18, col. 4 lines 41-60, col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6);

a plurality of second MSISDN for using in at least one second mobile network (col. 1 line 41 – col. 2 line 18, col. 4 lines 41-60, col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6);

Anvekar does not show SIM having two or more MSISDN. **However, Anvekar does disclose roaming between different service providers (col. 6 line 23 - col. 8 line 6).**

Molne teaches the SIM comprises multiple MSISDNs (see SIM card in figure 4, col. 8 lines 14-32). **Molne discloses SIM comprises multiple MSISDNs is because different networks may operate via different standards which would clearly imply**

**that one operator uses PCS standard and another operator may operate via AMPS (col. 8 lines 14-32).**

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the teachings of Molne into the teachings of Anvekar in order to provide a method and apparatus for over the air activation of multiple mode/band radio telephone as disclosed by Molne (abstract, col. 2 line 66 – col. 3 line 2).

Anvekar in view of Molne do not show routing using only one IMS.

Ala-Luukko also teaches IMSI in conjunction with MSISDN (paragraphs 0004 – 0005). Ala-Luukko also teaches that one IMSI can be associated with more than one MSISDN (paragraph 0023). Ala-Luukko teaches the HLR offers an interface to a gateway node to be used for requesting MSISDN number on the basis of IMSI thereby eliminating the need to copy and/or store data in two different places (paragraphs 0036 – 0043) thus enabling for real-time services to be employed from the gateway (paragraphs 0005, 0011, 0012, 0013).

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the signal gateway as taught by Ala-Luukko into the teachings of Anvekar in view of Molne thereby eliminating the need to store subscriber data in two different locations while providing a method and system that can offer and charge for real-time services as taught by Ala-Luukko (paragraphs 0005, 0011 – 0013).

Anvekar and Ala-Luukko do not use the term IMSI-H.

Joss also teaches using IMSI-H that is assigned via Home operator so subscribers can roam into areas that have **no roaming agreement with the operator**

**of their home network** (col. 1 line 5 – col. 2 line 42). Joss uses IMSI-H so foreign networks can recognize mobile users as an authorized subscriber from a different network (col. 2 line 43 – col. 3 line 53, col. 5 lines 14-25, col. 6 lines 7-67, col. 7 lines 1-43, col. 8 lines 1-64, col. 9 line 30 – col. 10 line 30, col. 10 line 64 – col. 11 line 22).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to modify the invention as taught by Anvekar in view of Molne and Ala-Luukko to assign a home IMSI number as taught by Joss so that subscribers can roam freely in a foreign network that has no roaming agreement with the subscribers home operator while saving on networking resources since only the Home Location Register is the only place subscriber data needs to be stored (Joss --- col. 2 lines 35-42, col. 5 lines 14-25, col. 6 lines 53-54, col. 10 line 64 – col. 11 line 22).

According to Applicants (see paper dated 10/31/07, page 29 line 9), Anvekar in view of Ala-Luukko and Joss do not explicitly show using a single HLR entry corresponding to the IMSI-H.

Julin teaches the IMSI-H is linked to a single entry in the HLR (abstract, col. 4 lines 33-49) to enable a more flexible use of subscriptions and subscriber identity modules (col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 13-16, col. 2 lines 39-42).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to incorporate the teachings of Julin into the teachings of Anvekar in view of Ala-Luukko and Joss providing for a more flexible subscriber identity module that can be used in a new way (Julin col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 39-42).

Regarding claim 49. Anvekar teaches a method for supporting multiple MSISDN in a mobile device, comprising:

routing communication between the mobile device and a first network using first MSISDN associated with the first network, wherein the mobile device includes a SIM with single IMSI (col. 1 line 41 – col. 2 line 18, col. 4 lines 41-60, col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6);

mapping the first MSISDN to one of a plurality of second MSISDN that are associated with a second network (col. 1 line 41 – col. 2 line 18, col. 4 lines 41-60, col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6).

Anvekar does not show SIM having two or more MSISDN. **However, Anvekar does disclose roaming between different service providers (col. 6 line 23 - col. 8 line 6).**

Molne teaches the SIM comprises multiple MSISDNs (see SIM card in figure 4, col. 8 lines 14-32). **Molne discloses SIM comprises multiple MSISDNs is because different networks may operate via different standards which would clearly imply that one operator uses PCS standard and another operator may operate via AMPS (col. 8 lines 14-32).**

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the teachings of Molne into the teachings of Anvekar in order to provide a method and apparatus for over the air activation of multiple mode/band radio telephone as disclosed by Molne (abstract, col. 2 line 66 – col. 3 line 2).

Anvekar in view of Molne do not show routing using only one IMS.

Ala-Luukko also teaches IMSI in conjunction with MSISDN (paragraphs 0004 – 0005). Ala-Luukko also teaches that one IMSI can be associated with more than one MSISDN (paragraph 0023). Ala-Luukko teaches the HLR offers an interface to a gateway node to be used for requesting MSISDN number on the basis of IMSI thereby eliminating the need to copy and/or store data in two different places (paragraphs 0036 – 0043) thus enabling for real-time services to be employed from the gateway (paragraphs 0005, 0011, 0012, 0013).

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the signal gateway as taught by Ala-Luukko into the teachings of Anvekar in view of Molne thereby eliminating the need to store subscriber data in two different locations while providing a method and system that can offer and charge for real-time services as taught by Ala-Luukko (paragraphs 0005, 0011 – 0013).

Anvekar and Ala-Luukko do not use the term IMSI-H.

Joss also teaches using IMSI-H that is assigned via Home operator so subscribers can roam into areas that have **no roaming agreement with the operator of their home network** (col. 1 line 5 – col. 2 line 42). Joss uses IMSI-H so foreign networks can recognize mobile users as an authorized subscriber from a different network (col. 2 line 43 – col. 3 line 53, col. 5 lines 14-25, col. 6 lines 7-67, col. 7 lines 1-43, col. 8 lines 1-64, col. 9 line 30 – col. 10 line 30, col. 10 line 64 – col. 11 line 22).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to modify the invention as taught by Anvekar in view of Molne and Ala-Luukko to assign a home IMSI number as taught by Joss so that subscribers can

Art Unit: 2617

roam freely in a foreign network that has no roaming agreement with the subscribers home operator while saving on networking resources since only the Home Location Register is the only place subscriber data needs to be stored (Joss --- col. 2 lines 35-42, col. 5 lines 14-25, col. 6 lines 53-54, col. 10 line 64 – col. 11 line 22).

According to Applicants (see paper dated 10/31/07, page 29 line 9), Anvekar in view of Ala-Luukko and Joss do not explicitly show using a single HLR entry corresponding to the IMSI-H.

Julin teaches the IMSI-H is linked to a single entry in the HLR (abstract, col. 4 lines 33-49) to enable a more flexible use of subscriptions and subscriber identity modules (col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 13-16, col. 2 lines 39-42).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to incorporate the teachings of Julin into the teachings of Anvekar in view of Ala-Luukko and Joss providing for a more flexible subscriber identity module that can be used in a new way (Julin col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 39-42).

Regarding claim 77. Anvekar teaches a method for routing communication, the method comprising:

assigning a first MSISDN to a mobile device in a first network, the mobile device having SIM and a single IMSI (col. 1 line 41 – col. 2 line 18, col. 4 lines 41-60, col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6);

assigning a second MSISDN to the mobile device for use in a second network (col. 1 line 41 – col. 2 line 18, col. 4 lines 41-60, col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6).

Anvekar does not show SIM having two or more MSISDN. **However, Anvekar does disclose roaming between different service providers (col. 6 line 23 - col. 8 line 6).**

Molne teaches the SIM comprises multiple MSISDNs (see SIM card in figure 4, col. 8 lines 14-32). **Molne discloses SIM comprises multiple MSISDNs is because different networks may operate via different standards which would clearly imply that one operator uses PCS standard and another operator may operate via AMPS (col. 8 lines 14-32).**

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the teachings of Molne into the teachings of Anvekar in order to provide a method and apparatus for over the air activation of multiple mode/band radio telephone as disclosed by Molne (abstract, col. 2 line 66 – col. 3 line 2).

Anvekar in view of Molne do not show routing using only one IMS.

Ala-Luukko also teaches IMSI in conjunction with MSISDN (paragraphs 0004 – 0005). Ala-Luukko also teaches that one IMSI can be associated with more than one MSISDN (paragraph 0023). Ala-Luukko teaches the HLR offers an interface to a gateway node to be used for requesting MSISDN number on the basis of IMSI thereby eliminating the need to copy and/or store data in two different places (paragraphs 0036

– 0043) thus enabling for real-time services to be employed from the gateway (paragraphs 0005, 0011, 0012, 0013).

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the signal gateway as taught by Ala-Luukko into the teachings of Anvekar in view of Molne thereby eliminating the need to store subscriber data in two different locations while providing a method and system that can offer and charge for real-time services as taught by Ala-Luukko (paragraphs 0005, 0011 – 0013).

Anvekar and Ala-Luukko do not use the term IMSI-H.

Joss also teaches using IMSI-H that is assigned via Home operator so subscribers can roam into areas that have **no roaming agreement with the operator of their home network** (col. 1 line 5 – col. 2 line 42). Joss uses IMSI-H so foreign networks can recognize mobile users as an authorized subscriber from a different network (col. 2 line 43 – col. 3 line 53, col. 5 lines 14-25, col. 6 lines 7-67, col. 7 lines 1-43, col. 8 lines 1-64, col. 9 line 30 – col. 10 line 30, col. 10 line 64 – col. 11 line 22).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to modify the invention as taught by Anvekar in view of Molne and Ala-Luukko to assign a home IMSI number as taught by Joss so that subscribers can roam freely in a foreign network that has no roaming agreement with the subscribers home operator while saving on networking resources since only the Home Location Register is the only place subscriber data needs to be stored (Joss --- col. 2 lines 35-42, col. 5 lines 14-25, col. 6 lines 53-54, col. 10 line 64 – col. 11 line 22).



According to Applicants (see paper dated 10/31/07, page 29 line 9), Anvekar in view of Ala-Luukko and Joss do not explicitly show using a single HLR entry corresponding to the IMSI-H.

Julin teaches the IMSI-H is linked to a single entry in the HLR (abstract, col. 4 lines 33-49) to enable a more flexible use of subscriptions and subscriber identity modules (col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 13-16, col. 2 lines 39-42).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to incorporate the teachings of Julin into the teachings of Anvekar in view of Ala-Luukko and Joss providing for a more flexible subscriber identity module that can be used in a new way (Julin col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 39-42).

Regarding claims 2-3, 41-42. Molne teaches that SIM can have more than one MSISDN (see SIM card in figure 4, col. 8 lines 14-32).

Regarding claims 4-5, 20, 33, 43-44, 52. Anvekar teaches the MSISDN can be used in local network or used in roaming network (col. 4 lines 41-60, col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6).

Regarding claims 6, 21, 34, 45, 56. Anvekar teaches mapping MSISDN numbers (col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6).

Regarding claims 7, 22, 35, 46, 57. Anvekar teaches one component of the at least one signal gateway provides at least one of a HLR, a visited VLR (col. 4 lines 25-26, col. 6 line 57 – col. 7 line 14, a GMSC, a short message service center (col. 9 lines

39-59), and a service node in at least one of the first network and second network (see either nodes 520A or 520B in figure 5).

Regarding claims 10-15, 25-28. Anvekar teaches Signaling System 7 (col. 12 line 67).

Regarding claims 16, 29, 38, 60. Anvekar teaches at least one of cellular telephones (item 180 in figure 1).

Regarding claims 31 and 50. Anvekar teaches SIM in conjunction with IMSI (col. 4 lines 41-60).

Regarding claims 32 and 51. Anvekar in view of Molne do not teach routing in conjunction with SIM having only single IMSI.

Ala-Luukko also teaches IMSI in conjunction with MSISDN (paragraphs 0004 – 0005). Ala-Luukko also teaches that one IMSI can be associated with more than one MSISDN (paragraph 0023). Ala-Luukko teaches the HLR offers an interface to a gateway node to be used for requesting MSISDN number on the basis of IMSI thereby eliminating the need to copy and/or store data in two different places (paragraphs 0036 – 0043) thus enabling for real-time services to be employed from the gateway (paragraphs 0005, 0011, 0012, 0013).

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the signal gateway as taught by Ala-Luukko into the teachings of Anvekar in view of Molne thereby eliminating the need to store subscriber data in two different locations while providing a method and system that can offer and charge for real-time services as taught by Ala-Luukko (paragraphs 0005, 0011 – 0013).

Regarding claim 53. Anvekar teaches wherein the IMSI is associated with the first MSISDN number in the first network, and wherein the plurality of second MSISDN are in a designated range of numbers defined in the second network (col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6).

Regarding claim 54. Anvekar in view of Molne do not teach gateway serving as a HLR.

Ala-Luukko also teaches IMSI in conjunction with MSISDN (paragraphs 0004 – 0005). Ala-Luukko also teaches that one IMSI can be associated with more than one MSISDN (paragraph 0023). Ala-Luukko teaches the HLR offers an interface to a gateway node to be used for requesting MSISDN number on the basis of IMSI thereby eliminating the need to copy and/or store data in two different places (paragraphs 0036 – 0043) thus enabling for real-time services to be employed from the gateway (paragraphs 0005, 0011, 0012, 0013).

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the signal gateway as taught by Ala-Luukko into the teachings of Anvekar in view of Molne thereby eliminating the need to store subscriber data in two different locations while providing a method and system that can offer and charge for real-time services as taught by Ala-Luukko (paragraphs 0005, 0011 – 0013).

Regarding claims 80-83. Joss teaches HPMN and FPMN (see Home network on left side of figure 1 and Foreign (a.k.a. visited) network on right side of figure 1).

3. Claims 8-9, 23-24, 36-37, 47-48, 58-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anvekar et al (6,603,968) in view of Molne (6,014,561), Ala-

Luukko (2003/0050047), Joss et al (6,684,073 hereinafter Joss) and Julin (6,212,372) further in view of Berg et al (6,876,860 hereinafter Berg).

Regarding claims 8-9, 23-24, 36-37, 47-48, and 58-59. Anvekar in view of Molne, Ala-Luukko, Joss and Julin do not use the term loop-back.

Berg teaches using a call back service for roaming mobile telephones (title, abstract, col. 1 lines 15 – col. 2 line 42) which simplifies roaming both internationally and between networks of different operators and creates a uniform protocol for accessing services in other GSM networks.

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the call back service as taught by Berg into the teachings of Anvekar in view of Molne, Ala-Luukko, Joss and Julin in order to provide a uniform standard for roaming mobile users where the ratio of fees between VPLMN and HPLMN are reversed as taught by Berg (col. 1 lines 15-20, lines 62-65).

### ***Response to Arguments***

4. Applicant's arguments filed 8/27/2008 have been fully considered but they are not persuasive.

a) Applicants continue to argue that prior art of record does not teach a single HLR profile that includes two MSISDNs (see remark on page 31, paper dated 8/27/08). The Examiner respectfully disagrees. Molne clearly shows SIM comprises multiple MSISDNs (see SIM card in figure 4 and col. 8 lines 14-32). Ala-Luukko also teaches IMSI in conjunction with MSISDN (paragraphs 0004 – 0005). Ala-Luukko also teaches that one IMSI can be associated with more than one MSISDN (paragraph 0023). Ala-

Art Unit: 2617

Luukko teaches the HLR offers an interface to a gateway node to be used for requesting MSISDN number on the basis of IMSI thereby eliminating the need to copy and/or store data in two different places (paragraphs 0036 – 0043) thus enabling for real-time services to be employed from the gateway (paragraphs 0005, 0011, 0012, 0013). Joss also teaches using IMSI-H that is assigned via Home operator so subscribers can roam into areas that have no roaming agreement with the operator of their home network (col. 1 line 5 – col. 2 line 42). Joss uses IMSI-H so foreign networks can recognize mobile users as an authorized subscriber from a different network (col. 2 line 43 – col. 3 line 53, col. 5 lines 14-25, col. 6 lines 7-67, col. 7 lines 1-43, col. 8 lines 1-64, col. 9 line 30 – col. 10 line 30, col. 10 line 64 – col. 11 line 22). Julin does not teach away from first and second MSISDN associated with one IMSI (see at least figure 4 and col. 5 lines 19-67 wherein the home database is extended to include two MSISDNs associated with one IMSI which allows subscribers to personalize where calls are to be forwarded).

### ***Allowable Subject Matter***

5. Claims 61, 64-69, 73-76, 78-79 and 84 are allowed.

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry W. Taylor, telephone number (571) 272-7509, who is available Monday-Thursday, 6:30am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne Bost, can be reached at (571) 272-7023. The central facsimile phone number for this group is **571-273-8300**.

Art Unit: 2617

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 2600 receptionist whose telephone number is (571) 272-2600, the 2600 Customer Service telephone number is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Centralized Delivery Policy: For patent related correspondence, hand carry deliveries must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), and facsimile transmissions must be sent to the central fax number **(571-273-8300)**.

/Barry W Taylor/

Primary Examiner, Art Unit 2617